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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,127	04/05/2001	Chaojun Deng	022152-000700US	4908

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EXAMINER	
MURPHY, RHONDA L	
ART UNIT	**PAPER NUMBER**
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/827,127	DENG, CHAOJUN	
	Examiner	Art Unit	
	RHONDA MURPHY	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *69-74 and 78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *69-74 and 78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/18/08 has been entered.

2. Claims 1-68, 75-77 and 79-96 have been canceled and claims 69-74 and 78 are currently pending in this application.

Response to Arguments

3. Applicant's arguments filed 9/18/08 have been fully considered but they are not persuasive. Applicant argues Kastenholz fails to teach “electrical connections between the first transfer card and the second interface card occur indirectly.” However, Examiner respectfully disagrees. Figure 3 of Kastenholz illustrates line card 202 and interconnect board 220 which contain electrical connections and are indirectly connected via the communication lines extending from “202” and “220”.

4. Thus, it is Examiner’s position that all claim limitations have been met and the rejection has been maintained.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 69 and 72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claims 69 and 72, the amended limitation "electrical connections between the first transfer card and the second interface card **occur indirectly**" is unclear.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 69 – 73 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kastenholz et al. (US 2006/0007946 A1).

Regarding claim 69, Kastenholz teaches a system for data communication, the system comprising:

a first circuit card (Figs. 2 and 3; line card module 102) including one or more first interfaces (page 4, paragraph 45; I/O interfaces) and one or more first logic components for processing control (page 4, paragraph 45);

a first transfer card (Fig. 3; local line card 202) coupled to the first circuit card (see Fig. 3; page 5, paragraph 50) through at least a first base card (Fig. 3; page 5, paragraph 50; printed circuit board), the first base card being coupled directly to the first transfer card (see Fig. 3; page 5, paragraph 50);

a second circuit card (Figs 2 and 5; expanded interconnect board 138) including one or more second interfaces (Fig. 5; ports) and one or more second logic components for processing control (page 8, paragraph 74);

a second transfer card (Fig. 5; ASIC 410 a/b) coupled to the second circuit card (see Fig. 5) through at least a second base card (Fig. 5, page 4, paragraph 44; printed circuit board), the second base card being coupled directly to the second transfer card (see Fig. 5);

a first switched network card (Figs. 2, 3 and 5; local interconnect module 118) to at least perform an exchange function between the first circuit card and the second circuit card (Fig. 2; via communication lines between 102, 118 and 138), the first switched network card (118) and the first circuit card (102) being different types of cards (page 5, paragraphs 50-51; 102 is a line card and 118 is a module divided into planes, containing an ASIC);

a first interface card (Fig. 3; interconnect board 218) coupled to the first switched network card (see Fig. 3; page 5, paragraph 51) through at least a third base card (Fig. 3; page 5, paragraph 51; printed circuit board), the third base card being coupled directly to the first interface card (see Fig. 3);

a second interface card (Fig. 3, interconnect board 220) coupled to the first switched network card (see Fig. 3; page 5, paragraph 51);

a first data communication link (Fig. 3, communication lines 217) connecting the first transfer card and the first interface card (page 5, paragraph 50);

a second data communication link (Fig. 5, communication lines between 220 and 138) connecting the second transfer card and the second interface card (see Fig. 5);

wherein: the first transfer card, and the first circuit card are associated with a first framework (Fig. 2; page 8, paragraph 70; chassis 101); the first interface card, the second interface card, and the first switched network card, are associated with a second framework (Figs. 2 and 3, page 8, paragraph 70; chassis 103), the first framework and the second framework being associated with different physical locations (Fig. 2; page 8, paragraph 70; chassis 101 and 103 in different physical locations); and electrical connections between the first transfer card and the second interface card occur indirectly (see Fig. 3; via communication lines extending from “202” and “220”).

Kastenholz fails to explicitly teach backplanes. However, it is well known in the art for cards/modules to connect to backplanes.

Therefore, it would have been obvious to one skilled in the art to include backplanes (in each framework, in different physical locations - chassis 101 and 103), in order to provide a means for connecting the cards.

Although Kastenholz teaches base cards, transfer cards and circuit cards, Kastenholz fails to explicitly disclose the cards not being a part of one another.

However, it would have been obvious to one skilled in the art to separate elements, in order to have distinct elements within a system.

Note: Although Kastenholz fails to explicitly use the term "electrical", it is well known in the art for line cards, printed circuit boards to transmit data via electrical signals.

Regarding claim 70, Kastenholz teaches each of the first data communication link and the second data communication link including an optical fiber (page 5, paragraph 50: SONET I/O ports; page 8, paragraph 73: Gigabit Ethernet interfaces, inherently include optical fibers).

Regarding claim 71, Kastenholz teaches the first backplane and the second backplane are the same; the first base card and the second base cards are the same.

Regarding claim 72, Kastenholz teaches a system for data communication, the system comprising:

a first circuit card (Figs. 2 and 3; line card module 102) including one or more first interfaces (page 4, paragraph 45; I/O interfaces) and one or more first logic components for processing control (page 4, paragraph 45);

a first transfer card (Fig. 3; local line card 202) coupled to the first circuit card (see Fig. 3; page 5, paragraph 50);

a second circuit card (Figs. 2 and 3; line card module 104; although line module 102 is illustrated in Figure 3, line card module 104 is identical to 102; page 4, paragraph 44) including one or more second interfaces (page 4, paragraph 45; I/O interfaces) and one or more second logic components for processing control (page 4, paragraph 45);

a second transfer card (Fig. 3; local line card 202) coupled to the second circuit card (see Fig. 3; page 5, paragraph 50);

a first switched network card (Figs. 2, 3 and 5; local interconnect module 118) to at least perform an exchange function between the first circuit card and the second circuit card (Fig. 2; via communication lines between 102/104 and 118), the first switched network card (118) and the first circuit card (102) being different types of cards (page 5, paragraphs 50-51; 102 is a line card and 118 is a module divided into planes, containing an ASIC);

a first interface card (Fig. 3; interconnect board 218) coupled to the first switched network card (see Fig. 3; page 5, paragraph 51);

a second interface card (Fig. 3, interconnect board 220) coupled to the first switched network card (see Fig. 3; page 5, paragraph 51);

a first data communication link (Fig. 3, communication lines 217) connecting the first transfer card and the first interface card (page 5, paragraph 50);

a second data communication link (Fig. 3, communication lines 217 – of line card module 104) connecting the second transfer card and the second interface card (see Fig. 5);

wherein: the first transfer card and the first circuit card are associated with a first framework (Fig. 2; page 8, paragraph 70; chassis 101); the first interface card, the second interface card and the first switched network card are associated with a second framework (Figs. 2 and 3, page 8, paragraph 70; chassis 103), the first framework and the second framework being associated

with different physical locations (Fig. 2; page 8, paragraph 70; chassis 101 and 103 in different physical locations); each of the first data communication link and the second data communication link includes an optical fiber (page 5, paragraph 50: SONET I/O ports; page 8, paragraph 73: Gigabit Ethernet interfaces, inherently include optical fibers); and electrical connections between the first transfer card and the second interface card occur indirectly (see Fig. 3; indirectly via communication lines extending from “202” and “220”).

Note: Although Kastenholz fails to explicitly use the term "electrical", it is well known in the art for line cards, printed circuit boards to transmit data via electrical signals.

Kastenholz fails to explicitly teach backplanes. However, it is well known in the art for cards/modules to connect to backplanes.

Therefore, it would have been obvious to one skilled in the art to include backplanes (in each framework, in different physical locations - chassis 101 and 103), in order to provide a means for connecting the cards.

Although Kastenholz teaches transfer cards and circuit cards, Kastenholz fails to explicitly disclose the cards not being a part of one another.

However, it would have been obvious to one skilled in the art to separate elements, in order to have distinct elements within a system.

Note: Reference is made to line card module 104 throughout the rejection. Line card module 104 is illustrated in Figure 2 and is identical to line card module 102. Therefore, the other figures illustrating components and connections to/from line card module 102 also applies to line card module 104 (Kastenholz page 4, paragraph 44).

Regarding claim 73, Kastenholz teaches the first switched network card not receiving any data signal that does not transmit through a circuit card (see Fig. 2; all communication to the first switched network (interconnect module 118) goes through the circuit cards (line card module 102 and 104).

Regarding claim 78, Kastenholz teaches the system of claim 72.

Kastenholz fails to explicitly teach backplanes. However, it is well known in the art for cards/modules to connect to backplanes.

Therefore, it would have been obvious to one skilled in the art to determine a first backplane and a second backplane are the same, since the first circuit card and second circuit card are within the same chassis.

3. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kastenholz et al. (US 2006/0007946) in view of Gorshe et al. (US 6,667,973).

Regarding claim 74, Kastenholz teaches a switched network card coupled to both the first interface card and the second interface card, but fails to disclose a second switched network card coupled to both the first interface card and the second interface card.

However, Gorshe teaches a second switched network card (Figs. 1b and 4b, HSU located in main shelf 102) coupled to both the first interface card (Fig. 4b, AMU in shelf 404) and the second interface card (AMU in shelf 406).

In view of this, it would have been obvious to one skilled in the art to modify Kastenholz's system by including a second switched network card, in order to provide a back-up switched network card for interconnecting the interface cards.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RHONDA MURPHY whose telephone number is (571)272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
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/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616